



 $\alpha$ 99

the power of full-frame

# amaze yourself

Sony's full-frame interchangeable lens camera, the lpha99.



# welcome to the family

#### Introducing Sony's full-frame sensor lineup.

With the introduction of the SLT-A99V, DSC-RX1 and NEX-VG900, Sony brings some of the most innovative and revolutionary technologies to the table. Dual Phase Detection AF systems for lightning fast Tracking AF in stills and video, impeccable image quality from one of the world's first 35mm sensors to give you 1080/60p video and XLR adapters for the best in audio recording are just a few of features that can be found in the new family of full-frame cameras from Sony.

### DSC-RX1



The new DSC-RX1 is the world's first fixed lens 35mm full-frame digital camera which offers an uncompromising design that focuses on intuitive, user-friendly operation. The camera fits in the palm of a hand and allows users to carry it nearly everywhere to capture any shooting opportunity that arises.

- Full Frame 24 megapixel resolution with 14-bit RAW output
- Bright F2.0 Carl Zeiss® Sonnar T\* lens with macro capability
- World's first fixed lens 35mm digital camera
- Full HD 24p video with manual control and audio input



## NEX-VG900 FILL

The new Sony NEX-VG900 interchangeable lens Handycam® camcorder features a 24.3 MP full-frame 35mm sensor for high-quality HD video with a truly professional look. Shoot video in Full HD 24p, 60p or 60i, and take advantage of superb low-light performance.



### SLT-A99V FILL

By fully leveraging the potential of Translucent Mirror Technology, the 35mm full-frame format and Sony's professional broadcasting technology, it takes a major leap forward in quality, performance and handling ease. Meet the future of Sony  $\alpha$ .

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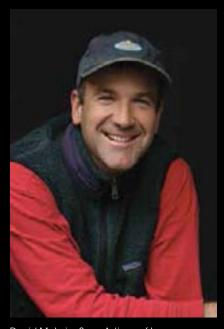








# the calling



David McLain, Sony Artisan of Imagery

"This assignment of a lifetime made me stop and think about the way photography has shaped my life. It made me appreciate how powerful photography is."

Sony took a major leap forward with the introduction of the new flagship Alpha  $\alpha$ 99 interchangeable lens camera. To demonstrate the revolutionary capabilities of the  $\alpha$ 99, Sony sent world-class photographer David McLain on the "Assignment of a Lifetime". David took the  $\alpha$ 99 on a trip around the world that resulted in some of the most stunning footage and still photographs he has ever captured. The assignment took David to Iceland, Vietnam, Spain, Paris, Detroit and Death Valley. Each location presenting unique challenges and opportunities that made the most of the  $\alpha$ 99's capabilities.

Go online to see David's short film "The Calling."





## "I love the way images, light, and color are so fleeting."

"I love shooting ice and icebergs. When we got to this glacier in Iceland, the light was cold and the water was still, which was perfect for the environment. I shot at a low angle to get the maximum reflection on the water and chose to put a little foreground of the shore in the frame to balance out the background. A few minutes later the wind picked up, the water started to ripple, and the picture was gone. I love the way images, light, and color are so fleeting. It's one of the many things that makes photography never get old."







"As I started looking around I saw this statue of Buddha lit by neon lights that seemed more suited to the window of a bar than a temple."

"We went to a Buddhist temple in Vietnam expecting to see weathered monks praying in dramatic shafts of light. When we got there, all the monks were gone, and the temple was lit with fluorescent light. That's the way it goes sometimes and you always need to make the best of it. As I started looking around I saw this statue of Buddha lit by neon lights that seemed more suited to the window of a bar than a temple. I really liked this contradiction of objects and light. It's important to have expectations but also to understand they may not always be met and to be able to change course or mindsets quickly in the field. It's a very Buddhist approach...."







"I was amazed afterward how much latitude the final frame had, and how the detail on the backside of the fisherman was maintained despite the fact we were shooting into the sun."

"We got up early one morning to shoot a fisherman on the Mekong Delta. Like most people who make a living from the land or sea he was very capable and skilled at his craft. I chose to shoot into the sun and from a low angle so the net and fisherman would stand out agains the sky. I was amazed afterward how much latitude the final frame had, and how the detail on the backside of the fisherman was maintained despite the fact we were shooting into the sun. Like a lot of scenes, I doubled this up on 60p (slow motion) video and the same scenario made it into the video we created from the shoot as well."



# push the envelope

### Gorgeous full-frame sensor image quality.

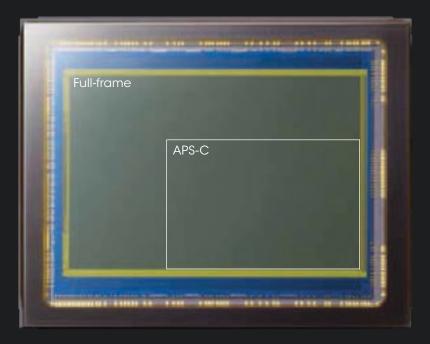
David found the perfect travel companion in the  $\alpha$ 99 because of the camera's ability to perform in the real world. In low light, contrary light, fog, rain, golden light, snow, overcast light, all conditions were conquered by the  $\alpha$ 99.

"We were hanging out with a goat herder in his barn early one morning in Southern Spain. There is a lot less light on his face than it looks like in this image. I opened all the way up, focused on his eyes, and made this portrait. Its important to always be on the lookout for light... its amazing all the places you can find it."



"I'm in love with my Zeiss 135mm F1.8 and shoot people with it all the time wide open. This lens along with the \alpha 99's full-frame sensor makes for some amazing image quality."



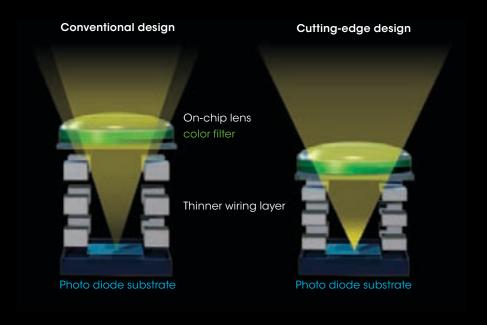


#### 24.3 megapixel 35mm full-frame Exmor CMOS sensor

The new 24.3 megapixel 35mm full-frame Exmor CMOS sensor delivers beautiful, finely detailed images from corner to corner with a wide dynamic range and low noise. Thanks to innovations that only Sony—one of the world's leading image sensor developers—could achieve, the sensor is 1.5x more sensitive and 2x more effective at eliminating random noise than the acclaimed  $\alpha$ 900. This wide and high ISO sensitivity combines with extremely low noise to make the  $\alpha$ 99 a brilliant performer in dim lighting. Photographers and cinematographers will also welcome the gorgeous bokeh and full compatibility with full-frame wide-angle lenses.

#### Light concentration technology

Sony compressed the height of circuitry within the image sensor via newly developed proprietary processing technology to dramatically increase the amount of light collected by each pixel. This vastly improved light-gathering efficiency results in significantly higher sensor sensitivity, much lower noise, an impressive signal-to-noise ratio and outstanding image quality in virtually all shooting conditions.



## Photo diode expansion technology

By taking full advantage of optimized image sensor circuitry, Sony significantly increased the size of the photo diode at every pixel. These larger photo diode dimensions more than doubled the sensor's dynamic range in comparison with the  $\alpha$ 900—a major breakthrough in performance that delivers smoother, richer image gradation. The larger dimensions also improved the signal-to-noise ratio by further increasing sensitivity and lowering noise.

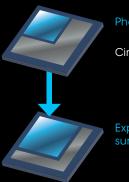


Photo diode substrate

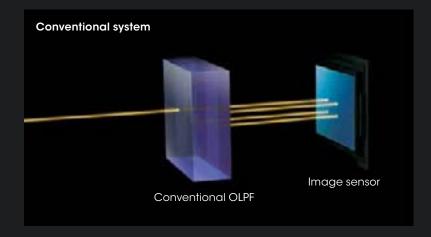
Circuit and wiring

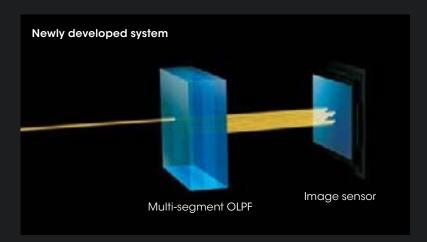
Expanded receptor surface

#### push the envelope

#### Multi-segment optical low-pass filter

Unlike conventional optical low-pass filters that degrade image resolution when suppressing moiré, Sony's new multi-segment optical low-pass filter effectively maintains high-resolution detail. This achievement was made possible by proprietary multi-segment technology from Sony's professional broadcasting equipment that subtly controls the distribution of image points.





#### On-chip column A/D conversion with dual NR

Thousands of parallel analog/digital converters in the sensor convert light to digital signals with utmost precision and speed. Before and after conversion, the sensor cancels noise to ensure exceptionally clean 14-bit signal output at all ISO settings. By performing analog/digital conversion and dual noise reduction on the chip itself before image processing, the  $\alpha$ 99 produces images of exceptional quality and clarity.





## think fast

### Engineered for speed and response.

David was able to capture crisp, sharp, perfectly-focused photographs as he globe trotted with the  $\alpha$ 99. The Dual Phase Detect AF system, a world first\* among interchangeable lens cameras, allowed him to perfectly capture each decisive moment with tack-sharp precision.

"Every pro demands speed and responsiveness from their camera and the  $\alpha$ 99 over-delivers on both fronts. This camera has an amazing amount of processing power which means quicker focus in low light and buffering that rarely kicks in while shooting still photographs."



"The \$\alpha\$99 focuses fast, and allows me to shoot in the widest possible range of light. These are the qualities in a camera that all photographers value."

#### High-speed front-end LSI chip

A new front-end LSI (large scale integration) chip supports the BIONZ<sup>™</sup> image processing engine to significantly boost performance during the early stages of processing. By accelerating the handling of image sensor data early on, the LSI chip frees other BIONZ components to achieve a more subtle level of peripheral shading compensation and advanced black level offset correction that significantly raises image quality.



### **BIONZ**

#### **BIONZ** image processing engine

Accelerated BIONZ processing easily handles the massive 14-bit data generated by the 35mm full-frame sensor. Even when loads are heaviest, such as during high-speed continuous shooting and Multi Frame NR, Sony's new high-speed front-end LSI chip processes the data with precision and ease. New area-specific noise reduction also ensures clear, low-noise images over the entire sensitivity range. Through these and other refinements, the engine delivers 14-bit RAW output of exceptional quality with extremely rich gradation.



#### Area-specific noise reduction

This intelligent noise reduction selectively divides the image into areas based on patterns (such as edges, textures and evenly colored areas like blue skies), then optimally processes each area to markedly reduce noise and improve image quality—especially when shooting in dimly lit environments. Combined with conventional noise reduction, this new feature delivers clear, low-noise images throughout the entire 9-stop range (ISO 100-25600, expandable to ISO 50).





#### SteadyShot™ INSIDE image stabilization

Advanced image stabilization compensates for camera-shake blur and is an especially useful feature during handheld shooting. Since the sensor-shift image stabilizer is in the camera, it provides image stabilization for any mounted A-mount system lens, including all Carl Zeiss® and G Lenses, from wide-angle to telephoto. You can capture sharp images at shutter speeds 2.5 to 4.5 steps slower than otherwise possible without a tripod or flash, as well as take advantage of vastly increased photo opportunities.



#### 14-bit RAW output

14-bit RAW image data of extremely high quality is output by the  $\alpha$ 99. This data fully preserves the rich detail generated by the image sensor during the 14-bit A/D conversion process. When developed with Sony's Image Data Converter RAW development software, these images deliver the superb photographic expression and rich gradation that only 14-bit data can offer.

#### Lens shading and aberration compensation

The camera automatically compensates for the shading and aberrations specific to the lens you mount. This includes vignetting (peripheral shading), lateral chromatic aberration and optical distortion compensation, which can each be manually activated or deactivated as desired. Embedded data within the camera on supported A-mount lenses ensures optimal compensation.

Newly supported lenses: 50mm F1.4, 24–70mm F2.8 ZA SSM, 28–75mm F2.8 SAM, 70-400mm F4-5.6 G SSM, 70-200m F2.8 G, 35mm F1.4 G, Vario-Sonnar T\* 16-35mm F2.8 ZA SSM, DT 55-300mm F4.5-5.6 SAM, DT 30mm F2.8 Macro SAM

Among interchangeable lens digital cameras with a full-frame image sensor (as of September 12, 2012) according to Sony's internal survey.



## sharpen your focus



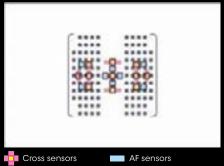
#### **Translucent Mirror Technology**

Sony Translucent Mirror Technology revolutionized interchangeable lens cameras by replacing the swinging mirror of SLRs with a stationary translucent mirror that continuously directs light to the AF sensor and image sensor. This innovation enables both full-time phase detection AF and full-time live view through the viewfinder and rear LCD monitor during single shot, continuous and movie shooting.

Now Translucent Mirror Technology boasts another breakthrough—Dual AF System. By simultaneously directing light towards two phase detection AF sensors, it essentially doubles the potential of autofocus for serious photographers.

#### **Dual AF System**

Dual AF System is the world's first\* AF system to employ two phase detection sensors. By maximizing the strengths of both sensors, it vastly improves subject tracking performance as well as focusing precision. The 19-point (11 cross-point) phase detection AF sensor mounted above the translucent mirror provides high-precision focusing performance and depth detection, while the 102-point focal plane phase detection AF sensor overlaying the image sensor offers the advantages of wider depth and width (object plane) coverage. Together, these sensors deliver a new level of AF performance and functionality.



Focal plane phase detection AF sensor

\* The world's first AF system in a 35mm full-frame interchangeable lens digital camera to feature two phase detection sensors as of September 12, 2012, according to Sony's internal survey. Notes: Only the following lenses currently support AF-D mode and area assist display in AF Range Control: Vario-Sonnar T\* 24-70mm F2.8 ZA SSM, 50mm F1.4, 28-75mm F2.8 SAM, 70-400mm F4-5.6 G SSM, 500mm F4 G SSM, and New 300mm F2.8 G. (Firmware updates are also planned for other A-mount lenses. Please refer to the Sony website for more details.)



#### AF-D mode

Continuous autofocusing is provided by a new AF-D (Depth Map Assist Continuous AF) mode that delivers precision focusing for virtually any subject. This mode utilizes the 19-point (11 cross-point) phase detection AF sensor to keep subjects sharply focused in most shooting situations. When fastmoving subjects demand wider, denser area coverage than the 19-point AF area can provide, the 102-point focal plane phase detection AF sensor lends reliable support. This combination of 121 AF "eyes" (19+102) from two highly precise phase detection AF sensors provides a clear performance advantage over single-sensor AF systems.

Note: AF-D mode requires a compatible full-size lens. The range of supported lenses will gradually expand through firmware updates.



#### **AF Range Control**

Subject tracking can be limited to a specified range of distance so the camera stays focused on your subject even if background and foreground objects enter the AF frame. To stay focused on a drummer even when guitarists cross the stage, for example, or to keep an athlete in focus through a wire fence, simply press the dedicated AF Range button, use the front and rear dials to set the minimum and maximum distances from the camera, and enjoy highly accurate focusing that disregards everything but your subject. A user-friendly graphic indicator clearly displays the selected range as well as the point, in terms of distance, that is currently in focus.

#### AF area modes

Four AF area modes are provided to meet various needs. You can select Wide (all 19 sensors), Spot (central sensor), Local (any selected sensor) or Zone (right, center, or left zone) as well as 102-point assist AF points when in AF-D mode. Various AF modes are selectable—AF-S (Single shot), AF-A (Auto), AF-C (Continuous), AF-D (Depth Map Assist Continuous AF). Also selectable are Manual focus mode and DMF (Direct Manual Focus), which now provides access to the Peaking function for greater focusing precision.



Wide



Local



Spot



Zone



#### **Enhanced Tracking Focus**

Various advances come together in the  $\alpha$ 99 to enable accurate tracking of fast-moving subjects. Once you designate your subject and press the shutter button halfway (\$1), Tracking Focus activates and utilizes predictive focusing algorithms and Sony's original subject recognition technologies to track your subject's every move with speed and precision. This continuous, uninterrupted performance, made possible by Translucent Mirror Technology, is supported by blazing-fast BIONZ image processing and 19 autofocusing points. When AF-D mode is selected, an additional 102 assist autofocusing points are activated to further expand AF coverage, helping to better keep moving subjects in focus.

#### 6fps continuous shooting

The Continuous Advance Priority AE mode lets you capture the decisive moment at full resolution with clarity and precision by shooting at speeds up to 6fps. You can also raise the continuous shooting speed to approx. 10fps by entering the Tele-zoom High Speed Shooting mode.

hone your vision

#### Keep your eye on the viewfinder

The viewfinder is so informative and easy to view that every step in the shooting process can easily be handled from start to finish without removing your eye from the viewfinder. This includes setting up shooting parameters and previewing their effects in real-time, framing your subject and fine-tuning the focus with the magnification feature, shooting photos and movies, and checking final results. Even when shooting in bright outdoor lighting during sports, portrait and macro photography, the viewfinder provides the precision feedback you need. So you can fully concentrate on capturing spectacular images.

#### Clear photo and movie playback

Unlike optical viewfinders, the viewfinder in the  $\alpha$ 99 lets you view photos and movies that have already been recorded. This convenient capability is especially useful for confirming details in bright outdoor conditions. By applying the magnification function to recorded images, you can confirm whether every detail matches your highest expectations.

## MENU MOVIE 35mm DT lens full-frame (APS-C) 35mm full-frame capture APS-C capture

#### Color adjustment and display variations

Viewfinder color temperature can be adjusted to suit your preference and detailed shooting information can be displayed at high XGA resolution for quick and easy reference. The DISP button makes it easy to select any of five display modes (Shooting Data, Graphic, Digital Level Gauge, Histogram of Simple Display) while keeping your eye on the viewfinder.



Color adjustment

#### Viewfinder display options



Camera Level display



Image histogram display



Focus Range Control display



Quick Navi display

#### High-resolution XGA OLED Tru-Finder with 100% field of view

Sony's new XGA OLED Tru-Finder is easy to view in almost any lighting. Every detail is faithfully reproduced as it will appear in your recording, including defocusing effects that faithfully reflect your aperture settings. Since backlighting is eliminated, blacks are blacker, details are clearer and contrast is higher in both dark and light environments. You can also adjust viewfinder brightness for comfortable shooting indoors and out. Professional specifications include a wide 33.3° viewing angle, high 27mm eye-point and 100% frame coverage. Accelerated OLED response virtually eliminates motion blur and residual images when tracking moving objects or displaying recorded movies. Rich functionality includes numeric information displays, recorded image playback, and features for fine-tuning focus on the high-resolution 2,369K (approx.) screen. Even when APS-C format lenses are mounted, the image is displayed using the entire finder area.

## XGA OLED Tru-Finder





#### Faithfully reproduced bokeh

Since images displayed in the viewfinder come directly from the image sensor, they faithfully reproduce what will appear in your recorded images. You can therefore compose the scene and fine-tune every detail with remarkable accuracy instead of guesswork. Even bokeh is displayed with all the subtle characteristics that will appear in your final image. This is a decisive advantage over optical viewfinders, which display bokeh distorted by the focusing screen. Whether shooting portraits, commercial products or close-ups of miniature wonders, such precision helps you take better photographs.







Optical Viewfinder bokeh

#### **Focus Magnifier for fine-tuning focus**

The image in the viewfinder can be magnified up to 11.7x to allow super-fine tuning of the focus. High contrast is maintained even at high magnification, allowing accurate viewing of details and confident adjustment of focus and other settings. This magnification function is especially useful when shooting in bright sunlight, which is when the viewfinder is easier to view than the rear-mounted LCD. The

viewfinder also clearly displays images when the Smart Teleconverter function is used to magnify the center of the image 1.4x or 2x.









Focus Magnifier

#### Versatile viewing

100% Field coverage

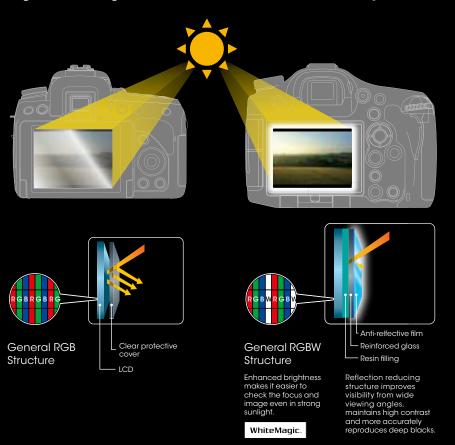
33.3° Wide viewing angle



#### WhiteMagic<sup>™</sup> and ultra-low reflection structure technology

Two innovative technologies improve LCD brightness and black reproduction to enhance viewing ease in almost any type of lighting. Ultralow reflection structure technology fills the gap between the protective outer glass and underlying LCD with resin to reduce surface reflections, improve visibility from wide viewing angles, maintain high contrast and

more accurately reproduce deep blacks. WhiteMagic nearly doubles the brightness of the display by combining white pixels with conventional red, green and blue pixels in a unique RGBW pixel structure. The resulting exceptional brightness dramatically improves visibility in sunny outdoor conditions, making it much easier to check the focus and image details.









## 3-way tiltable LCD supports various shooting positions

The LCD flexibly tilts to provide the most natural viewing angle and its 3-way tilting mechanism has been enhanced for operational ease. The mechanism easily adjusts to support everything from extremely low to extremely high shooting angles whether orienting the camera in the vertical or horizontal direction. Moreover, this same wideranging flexibility is available when utilizing a tripod or vertical grip. The close alignment of the optical axis and screen center also contributes to natural framing and shooting comfort. Whenever challenging shots require extra-clear viewing and unrivaled flexibility, this LCD will meet your need.





## take control

#### Smooth integrated control dial



The new Silent Multi Controller on the front of the body combines a dial and button to enable smooth, easy selection and adjustment of numerous camera

settings including focus mode, focus area, exposure compensation, ISO sensitivity and metering method. Depending on your preference, you may find it an extremely useful addition to the  $\alpha$ 99.



#### More intuitive Quick Navi Pro

The new Quick Navi Pro interface clearly displays all major shooting options on the screen so you can rapidly find desired options, confirm current settings and make adjustments without searching through dedicated menus. Convenient new features include a histogram and digital level gauge for easy reference and an indicator that appears with one press to display multiple functions adjacently for easy dial selection. When fleeting shooting opportunities arise, you'll be able to respond swiftly with just the right settings.



Quick Navi Pro

#### Dual Slot for freer control of data

Two media slots are provided along with highly flexible recording features. One slot supports Memory Sticks and SD memory cards, while the other is fully dedicated to SD cards. You can record movies simultaneously to both media for backup purposes—a world first\*—without slowing the camera down, simultaneously record still images to both media, record to different media by file format (RAW/JPEG), or record to different media by type of recording (still/movie). Moreover, the  $\alpha$ 99 makes it easy to copy folders from one card to another. Whatever your backup and usage intentions, this flexible new Dual Slot provides more freedom to do things your way.



 \* Among interchangeable lens digital cameras as of September 12th, 2012, according to Sony's internal survey.





#### Refinements for serious shooting

The  $\alpha$ 99 offers even greater comfort and handling ease than the acclaimed  $\alpha$ 77. Its optimized contours, thicker and taller grip, and wider thumb grip fit your hand more comfortably and contribute to a steady grasp. Frequently used controls are placed within natural reach, with main buttons near your thumb and dials placed front and rear for comfortable adjustment of major and minor parameters. Buttons are more varied in shape and height to support swifter tactile recognition while your eye stays on the viewfinder.

A new locking mechanism on the mode dial also prevents unintentional mode changes and missed photo opportunities. Clearly, meticulous refinement makes this is a camera body worthy of Sony's top-of-the-line model.

#### **Customizable buttons**

Five different buttons—the AF/MF, AEL, ISO, Preview and Custom Key buttons—can be reassigned to activate any of 33 functions for enhanced shooting convenience.

Assignable functions now include AF On, FE lock and Spot metering AE lock, as well as Exposure Compensation, Drive Mode, Flash Mode, Focus Area, Face Detection, Smile Shutter, ISO Sensitivity and Metering Mode.

You can also assign the front and rear dials to adjust exposure compensation functions (other than aperture and shutter speed) and customize the camera to automatically switch AF or AE on or off when the shutter button is halfway pressed.



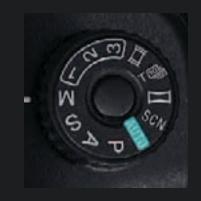




## Multi-interface shoe expands compatiblity

The highly expandable \$\alpha\$99 features a newly developed Multi Interface Shoe that is uniquely shaped to take advantage of wide-ranging accessories including products that break down the barriers between movie and photo shooting.

A Shoe Adaptor is also provided that enables compatibility with conventional camera accessories.



#### **Memory Function**

Combinations of settings that you consider especially useful can be registered in memory for quick recall whenever similar shooting situations arise. This feature lets you register up to three user-programmable groups of settings and quickly access them by using the MR setting on the mode dial, which features a center lockable button that prevents accidental mode changes.



## get tough

#### Robust magnesium alloy body

The rigidly constructed  $\alpha$ 99 is supremely lightweight. Its rugged magnesium-alloy top and rear panels interlock with front and side panels constructed of highly rigid engineering plastic to offer protective external shielding. Inside, a rigid magnesium chassis reinforced by stainless steel and other structural components contributes to a supremely rigid and lightweight camera able to withstand passionate usage in challenging conditions.



#### The world's lightest camera with full-frame sensor\*

Supremely lightweight construction contributes to agile handling in the field that, combined with full-frame performance, gives the  $\alpha$ 99 unrivaled appeal. Recordbreaking lightness was achieved through the use of lightweight materials like magnesium alloy and engineering plastic, as well as the elimination of unnecessary mechanisms such as heavy pentaprisms and active mirrors, thanks to Translucent Mirror Technology.

\* Among interchangeable lens digital cameras as of September 12, 2012 according to Sony's internal survey.

## 200,000 shutter release cycles

The new extremely durable shutter unit has been proven to endure approximately 200,000 shutter releases, a figure that rivals high-end professional cameras. While rugged enough to withstand the demands of 6fps (10fps in tele-zoom mode) continuous shooting, it offers exceptional precision at shutter speeds up to 1/8000 sec. made all the more accurate by the continuous support of auto diagnosis and correction. This proven combination of supreme accuracy and durability lets you shoot year upon year without worrying about wearing out the shutter unit.



#### Dust and moisture protection

Comprehensive dust and moisture resistance contributes to high reliability. Sony tightly interlocked the panels and components, added sealing around most buttons and dials, and placed gaskets along the edges of the viewfinder and LCDs (top and rear) to help prevent water and dust from entering the body during tough usage. Similar protection was applied to openings such as the media compartment, which is protected by an interlocking structure. Jack covers are fitted with rubber-based covers for better sealing and are organized by function to minimize opening and closing. The front section of the accessory shoe is also constructed of highly dust/water resistant parts.



## Vertical grip for triple battery advantage

The optional vertical grip (VG-C99AM) features optimized contours and essential controls that make vertical shooting nearly as comfortable as horizontal shooting. It can house two batteries that combine with the main battery to offer a three-battery advantage that practically triples shooting stamina whether shooting still images or movies. The grip's batteries can also be changed while continuing to shoot movies. Dust and moisture resistance meet the same high standards as the camera body.



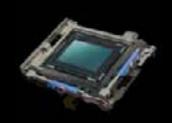


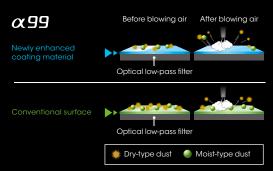


#### Reliable anti-dust measures

Advanced dust resistance helps keep your photos blemish-free. If dust particles enter the camera when the lens is being changed, two levels of protection safeguard the image sensor. The first level of protection is a newly developed coating on the surface of the optical low-pass filter. Even in the most adverse temperature and humidity conditions,

this highly effective Anti-dust Coating effectively suppresses the attachment of both dry and moist dust particles and simplifies their removal. The second level of protection is an anti-dust mechanism that vibrates the filter at high speed every time the camera is switched off to dislodge any dust particles that settled on its surface.





# get into motion

### Experience movie making in full-frame high definition.

David likes to work fast and light with a small production footprint. Because the  $\alpha$ 99 has less rolling shutter than the competition. He can spend more time shooting hand held with significantly less need for third party rigs. After using the tiltable LCD that pivots and swivels in every direction, David admits he will never go back to shooting video with a fixed LCD camera.

"In Southern Spain we went swimming in a beautiful lake. We were there to shoot people jumping off of cliffs, but when the fixer's wife was drying off after a dip in the lake she pulled the towel up over her face in a way that caught my eye."



"The **X**99 has significantly less rolling shutter than most DSLRs, uses the AVCHD codec, and has an EVF that allows me to see what I'm shooting in real time in video mode."

#### **Expressive 35mm full-frame moviemaking**

The full-frame  $\alpha$ 99 empowers you to create highly expressive movies with professional-quality bokeh, a stunning sense of depth and extremely low noise even in dark environments. This exceptional performance is made possible by the potent combination of a 35mm full-size sensor, flexible lens interchangeability, ISO 100-6400 sensitivity and various advances from professional Sony movie production equipment. You can also enjoy unlimited creative freedom thanks to a diverse range of moviemaking accessories, as well as take full advantage of bright high-performance  $\alpha$  lenses including full-frame Carl Zeiss and Sony G models.



#### **Silent Multi Controller for movies**

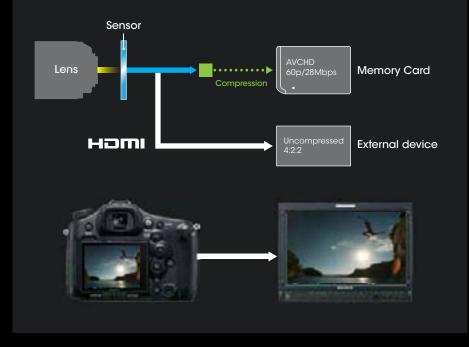
Perfect for use while shooting movies, this control lets you freely adjusts image and sound settings without producing mechanical noise that might be captured in the soundtrack. The new Silent Multi Controller on the front of the body combines a dial and button for smooth, easy selection and adjustment of numerous settings including audio recording and AF area.



#### HDMI

## Simultaneous Full HD movie output via HDMI (with shooting info On/Off flexibility)

An HDMI terminal makes it easy to transfer Full HD movie signals in real-time to an external monitor for accurate, large-screen viewing and listening. This feature supports uncompressed movie recording on external recording equipment and lets you output uncompressed movies with the shooting info display function off.



#### P/A/S/M manual movie modes

Manual operation frees you to realize your vision. Using manual focus and P/A/S/M modes (Program, Aperture Priority, Shutter Priority and Manual), you can flexibly adjust background blur and manually control exposure to achieve desired brightness and dynamism.

#### Estimated continuous movie shooting time

Ambient temperature	Continuous recording time for movies
20°C	Approx. 29 minutes
30°C	Approx. 29 minutes
40°C	Approx. 29 minutes



#### Full HD 60p movie recording

Create movies of amazing clarity that play extra smoothly by recording them at Full HD resolution (1920 x 1080 pixels) in the AVCHD Ver. 2.0 (Progressive) format—at the extremely high frame rate of 60fps. All the while, you can enjoy the huge advantages of 35mm full-frame movie capture and full-time continuous AF with three-level subject tracking sensitivity. This unrivaled combination of quality and speed enables first-rate still image extraction and post-production techniques like slow motion. The \$\alpha\$9 also supports 24p movie recording.



#### Full-time Continuous AF with 3-level subject tracking sensitivity

When shooting movies, Fulltime Continuous AF Movie delivers the superior speed and precision of full-time continuous phase detection autofocusing thanks to Translucent Mirror Technology. Advanced subject tracking is provided in your choice of three sensitivity levels—Hi for prioritized tracking speed, Mid for balanced speed and focal precision, or Low for prioritized stability. Whether capturing fast-moving athletes, models in studios, or faces in a crowd, you'll enjoy sharp, accurate autofocusing.

## Optional XLR Adaptor Kit for sound production befitting full-frame movies

This adaptor kit features XLR terminals, the professional standard for movie production, to enable sound recording via wide-ranging professional microphones and line-in connection for sound input. Users can therefore achieve versatile, high-quality sound expression that is suitable for full-frame movie quality. The ability to separately control left and right channel input directly from the XLR adaptor helps simplify postshoot editing.

## Audio level display and recording level control

Precise monitoring and adjustment of the microphone recording level is possible while shooting movies. The audio rec level control simultaneously adjusts both the L and R channels with 32-step precision.





#### Ready-use headphone jack

Professional sound production versatility and connectivity free you to create soundtracks as professional as your images. During movie recording and playback, you can monitor the sound using headphones connected with the  $\alpha$ 99. Stereo sound output is guaranteed to provide the highest possible playback quality via recommended Sony high-end headphones. Live (real-time) and Lipsync settings are provided for output timing that satisfies professional needs.





## unleash your creativity



Final image with optimum shadow/highlight detail

The Auto HDR function captures the

expanded detail of high dynamic

range photos. When you press the

shutter button, it instantly records

and composites the best details

three frames at different exposures

from each—in the highlights, mid-

tones and shadows—to create a

single image with wider dynamic

could possibly capture. The resulting

image is breathtaking and ideal for

post processing. You can select the

in 1EV steps up to a maximum ±6EV. No tripod is necessary when shooting

because subject movement is precisely compensated for.

exposure range, making adjustments

range than any single exposure



**Auto HDR** 

Highlight details Mid-tone details



Shadow details





#### Multi Frame NR

The Multi Frame NR mode is extremely effective at suppressing noise in dark, challenging shooting situations. Candlelit rooms, for example, can be vividly captured without using a tripod or flash. By seamlessly compositing six images, this mode achieves noise reduction equivalent to a 2-stop lower shutter speed. Noise is lower than when shooting normally at the same ISO speed, and sensitivity equivalent to ISO 51200 becomes possible when shooting at the highest ISO speed. Compatible with any ISO setting, the Multi Frame NR mode can also be used in combination with all P/A/S/M modes.



DRO on (Lv.5)



DRO off

#### **Dynamic Range Optimizer (DRO)**

In difficult lighting conditions, DRO analyzes and corrects your image in real time to expand its dynamic range and achieve smoother, more natural gradients with more detail in the highlights and shadows. If a backlit subject's face is dark, for example, it recovers details hidden in the shadows and delivers a naturally bright image. DRO can be used effectively during continuous shooting and lets you choose the amount of correction up to 5 steps.

## Exposure compensation and bracketing

Achieve just the right exposure by using Exposure Compensation to increase or decrease the exposure in 1/3 or 1/2 stop increments (between -5 and +5 EV). Or use Auto Exposure Bracketing to record three or five images at different exposure values, compare the results and choose the best one.



#### **Exposure modes**

The clearly labeled mode dial on top of the  $\alpha$ 99 provides quick access to all available exposure modes (Program Auto, Aperture priority, Shutter speed priority, Manual exposure modes, Auto mode and 8 Scene Selection modes).

#### **Creative Style**

Creative Style settings swiftly bring out the character of your scene. Depending on your subject and creative intentions, you can simply select any of 13 settings (including Standard, Vivid, Neutral, Portrait, Landscape, Sunset, Black & White, Clear and Deep). The camera will then adjust color and other image parameters to create the appropriate mood, while letting you fine-tune contrast, saturation\* and sharpness to suit your personal preference and achieve just the right finishing touch.



Creative Style: Landscape



Creative Style: Standard

\* Not available when B/W mode is selected.



#### **Picture Effect**

It's easy to apply innovative effects to your still images and movies. The 11 customizable modes (with 15 effects) include HDR Painting, Rich Tone Monochrome, Soft Focus and a Miniature mode that makes your subject look like a miniature model.



#### 1200-zone Evaluative Metering

An advanced evaluative metering sensor with 1200 zones ensures balanced exposures in wide-ranging lighting conditions as well as accurate subject recognition. Multi segment, Center weighted and Spot metering modes are selectable.



#### **Drive modes**

User-friendly icons make it easy to switch between single-shot, continuous, bracketed and self-timer shooting. Just select the drive mode along with selectable parameters (such as selftimer shooting with 2 or 10-second delay). Then start shooting.



#### **Two-axis White Balance**

Two-axis White Balance enables finer white balance adjustment than automatic white balance can provide. You can adjust white balance in the amber-blue and green-magenta directions to achieve more true-to-life color under almost any kind of light source.



# get to know the $\alpha$ 99



- 01 AF Illuminator/Self-timer
- 02 Mounting index
- 03 Custom button
- 04 Lens contacts

- 05 Lens release button
- 06 Mount
- 07 Silent multi-controller
- 08 Preview button

- 09 Remote sensor
- 10 Front dial control



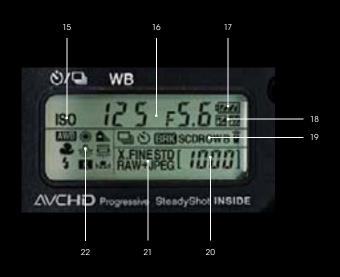
- 11 Viewfinder
- 12 Eyepiece sensors
- 13 MOVIE button
- 14 AF/MF button/Enlarge button
- 15 Rear control dial
- 16 AEL button/SLOW SYNC button/ Image index button

- 17 Multi-selector
- 18 DISP button
- 19 Fn button/Image rotation button
- 20 Smart teleconverter button/ Zoom button/Focus Magnifier button
- 21 Access lamp
- 22 AF RANGE button/Delete button

- 23 Playback button
- 24 LCD screen
- 25 MENU button

## get to know the $\alpha$ 99





- 01 Microphone
- 02 Drive button
- 03 White Balance button
- 04 Exposure button
- 05 Power switch
- 06 Shutter button
- 07 ISO button
- 08 Display panel illumination button

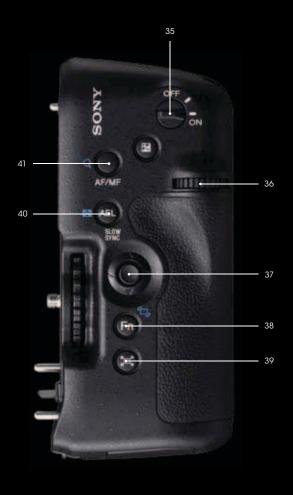
- 09 Image sensor position mark
- 10 Display panel
- 11 FINDER/LCD button
- 12 Multi Interface Shoe
- 13 Mode dial
- 14 Mode dial lock release button
- 15 ISO sensitivity
- 16 Shutter speed/Aperture

- 17 Remaining battery
- 18 Exposure/Flash Compensation
- 19 Drive mode
- 20 Remaining number of recordable images
- 21 Image quality
- 22 White balance

#### get to know the 0299







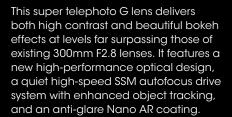
- 23 Flash sync terminal
- 24 Microphone jack
- 25 Headphones jack
- 26 HDMI terminal
- 27 USB terminal
- 28 DC IN terminal
- 29 Speaker
- 30 REMOTE terminal

- 31 Diopter-adjustment dial
- 32 SLOT 1 (Memory card slot 1)
- 33 Battery (inside)
- 34 SLOT 2 (Memory card slot 2)
- 35 Vertical Control On/Off
- 36 Control dial
- 37 Multi-selector
- 38 Function button/Image rotation button

- 39 Smart teleconverter button/ Zoom button/Focus Magnifier button
- 40 AEL button/SLOW SYNC button/ Image index button
- 41 AF/MF button/Enlarge button

# extend your point of view

### 300mm F2.8 G SSM II (SAL300F28G2)





#### ZEIZZ

#### Carl Zeiss® lenses

Developed jointly by Sony and renowned optical manufacturer Carl Zeiss, these superb AF-capable lenses feature Carl Zeiss optical formulas and coatings and are designed for professional photographers seeking utmost image quality.



Distagon T\*
24mm F2 ZA SSM
(SAL24F20Z)



 Planar T\*
 Sonnar T\*

 85mm F1.4 ZA
 135mm F1.8 ZA

 (SAL85F14Z)
 (SAL135F18Z)



Vario-Sonnar T\* 16-35mm F2.8 ZA SSM (SAL1635Z)



Vario-Sonnar T\*
24-70mm F2.8 ZA SSM
(SAL 24707)



#### **G** Lenses<sup>™</sup>

Sony's highest quality professional lenses are at the top of their class, delivering exceptional in-focus image quality and beautiful defocusing courtesy of advanced aspherical and ED glass elements as well as renowned Sony quality assurance technology.



**35mm F1.4 G** (SAL35F14G)



**70-200mm F2.8 G** (SAL70200G)



**70-300**mm **F4.5-5.6 G SSM** (SAL70300G)



**70-400mm F4-5.6 G SSM** (SAL70400G)



**500mm F4 G SSM** (SAL500F4G)



#### 135mm F2.8 [T4.5] STF (SAL135F28)

This special-purpose lens features apodization optics that deliver superb clarity at the point of focus and exceptionally smooth transitions between in-focus and defocused areas. A manual aperture ring provides added control over defocusing, which is especially desirable around T4.5 to T6.7.



#### Sony full-frame lenses

Designed to bring out the full potential of Sony  $\alpha$  digital cameras with 35mm full-frame sensors—including extremely high-resolution, high sensitivity and stunning sense of depth—Sony full-frame lenses integrate the latest lens technologies and include top-quality G series and Carl Zeiss lenses crafted to the highest standards of optical precision.



**28-75mm F2.8 SAM** (SAL2875)



**50mm F1.4** (SAL50F14)



**75-300**mm **F4.5-5.6** (SAL75300)



**50mm F2.8 Macro** (SAL50M28)



16mm F2.8 Fisheye (SAL16F28)



**85mm F2.8 SAM** (SAL85F28)



**20mm F2.8** (SAL20F28)



**100mm F2.8 Macro** (SAL100M28)

#### Sony DT lenses

Sony DT lenses are designed for digital interchangeable lens cameras with APS-C type image sensors and have slightly different optical requirements than 35mm full-frame image sensors. When a DT lens is mounted on the  $\alpha$ 99, it automatically switches to the APS-C mode and adjusts the XGA OLED Tru-Finder to clearly display the image with 100% coverage while maintaining high resolution.



DT 11-18mm F4.5-5.6 (SAL1118)



DT 18-250mm F3.5-6.3 (SAL18250)



DT 16-50mm F2.8 SSM (SAL1650)



DT 55-200mm F4-5.6 SAM (SAL55200-2)



DT 16-80mm F3.5-4.5 ZA (SAL1680Z)



DT 55-300mm F4.5-5.6 SAM (SAL55300)



DT 16-105mm F3.5-5.6 (SAL16105)



DT 30mm F2.8 Macro SAM (SAL30M28)



DT 18-55mm F3.5-5.6 SAM (SAL1855)



DT 35mm F1.8 SAM (SAL35F18)





DT 50mm F1.8 SAM (SAL50F18)

#### **Teleconverters**

Teleconverters boost the focal length of lenses without affecting resolving power and are a great way to extend your telephoto range in the field without adding much weight or bulk to your kit.



1.4x Teleconverter (SAL14TC)



2x Teleconverter (SAL20TC)

#### Compatible lenses

SAL70200G (70-200mm F2.8G)\*1 SAL300F28G (300mm F2.8G)\*1 SAL300F28G2 (300mm F2.8 G SSM II)\*1 SAL70400G (70-400mm F4-5.6 G SSM)\*2 SAL135F28 (135mm F2.8 [T4.5] STF)\*2 SAL500F4G (500mm F4 G SSM)\*3

- \*1: Compatible with MF and AF focusing modes.
- \*2: Compatible with MF focusing mode only.
- \*3: SAL14TC: Compatible with MF and AF focusing modes, SAL20TC: Compatible MF focusing mode only.

## expand your horizons



This powerful flagship flash unit (GN 60) features an LED light and delivers creative lighting for both still image and movie shooting. As a lighting solution that supports stringent professional demands, it offers a flexible rotation mechanism for Quick Shift Bounce as well as quick and intuitive operation via Quick Navi, which has received rave reviews on lpha series cameras. Also included are a built-in video LED lighting feature, a color temperature conversion filter for LED lighting, a diffuser and a bounce adaptor. Moreover, meticulous dust and moisture resistance support reliable shooting in various types of conditions.

- Guide number of 60 (105mm, ISO 100m)
- · Wireless multi flash ratio control
- Fast approx. 3.5 second recharge time
- · Dust and moisture resistant design
- · Built-in wide panel and bounce sheet
- · Multi Interface Shoe
- Shoe Adaptor (ADP-AMA) is included for usage with Auto-lock Accessory Shoe cameras









Bounce light 1 only



Bounce light 1 + 2







Bounce light 1 + 2 + 3 + 4

Wireless multi-flash with flash ratio control

Flash HVL-F43M



This large-capacity flash unit features Sony's Quick Shift Bounce design, which enables wide-ranging angle adjustment and the same lighting whether shooting in the landscape or portrait position. Shoe Adaptor ADP-MAA, which comes bundled with the \$\alpha\$99, is required to mount this flash unit on the \$\alpha\$99.

- Guide number of 43 (at 105mm, ISO 100m)
- · Wireless multi flash ratio control
- · Built-in wide panel and bounce sheet
- · Effective dust and moisture resistance
- Fast 2.9 second recharge time



Ring Light
HVL-RL1





The HVL-RL1 offers highly effective illumination of small subjects for macro shooting. Its powerful approx. 700 lx/0.3m (LED) performance is approximately 4 times brighter than in the previous model and brightness can be steplessly dimmed to achieve creative lighting that subtly reflects your intentions. Extremely smooth lighting effects can also be achieved without clearly revealing the source of light.



- Can be mounted on Multi Interface Shoe cameras.
   Full-ring illumination for shadowless lighting
- · Half-ring illumination for shadows and contrast
- Continuous illumination allows lighting to be checked at any time
- Filter diameter: 49mm, 55mm
- Shoe Adaptor (ADP-AMA) is included for usage with Auto-lock Accessory Shoe cameras

XLR Adaptor Kit
XLR-K1M



This kit meets the audio needs of professional movie production by providing two pro-standard XLR terminals that reliably connect the camera with professional XLR-connected microphones, mixing consoles and sound studios. Direct separate control of the left and right channels provides versatile possibilities such as control of recording level adjustment, attenuation and wind noise reduction to match microphone characteristics and creative intentions. MIC/LINE input switching for each channel is also provided to greatly simplify post-shoot editing.



#### Optional VCT-55LH bracket

- Various types of microphones are supported
- A lock mechanism prevents accidental cable detachment
- ECM-XM1 monaural shotgun microphone included
- Optional bracket is required to attach to lpha99 (adaptor cannot be attached directly to lpha99)

Vertical Grip VG-C99AM





Featuring optimal contours and essential controls, this grip provides comfort and handling on a par with horizontal shooting. It also offers a triple battery advantage (two batteries plus one in the camera) for extended shooting and playback.

- · Holds up to two NP-FM500H rechargeable battery packs (sold separately)
- · Dust and moisture resistant design



Stereo Microphone

ECM-ALST1



During movie shooting, this compact stereo microphone provides crisp, clear recording quality. It includes selectable directivity (90°/120°) for capturing dialogue or ambient sound.

- · Compact, lightweight design
- · Includes shock mount holder, wind screen, carrying case, pouch and battery (Sony Alkaline LR44)
- Shoe Adaptor ADP-MAA (included with lpha99) is necessary for usage with Multi Interface Shoe equipped camera



Shotgun Microphone

#### ECM-CG50



This professional quality "shotgun" microphone offers high directivity for isolating specific sound sources, as well as low noise and a wide dynamic range.

- · Plug-in power or three "AA" alkaline batteries
- Includes shock mount holder, spacer, wind screen, shoe adaptor and low-cut mode for reducing unwanted low frequencies
- · Can be mounted on Multi Interface Shoe cameras

Back pack LCS-BP3



In addition to holding the camera with standard lens attached, this bag's ample dimensions can carry various shooting-related accessories, up to four interchangeable lenses, and a laptop PC with up to 15.5 inch monitor. The designer paid close attention to details like the rain cover and various belt features that reduce the fatique of carrying a heavy load. This is truly a back pack designed to meet the stringent demands of professional photographers.

· Features easily accessible side opening, multiple pockets, 4 padded dividers and an integrated rain cover.







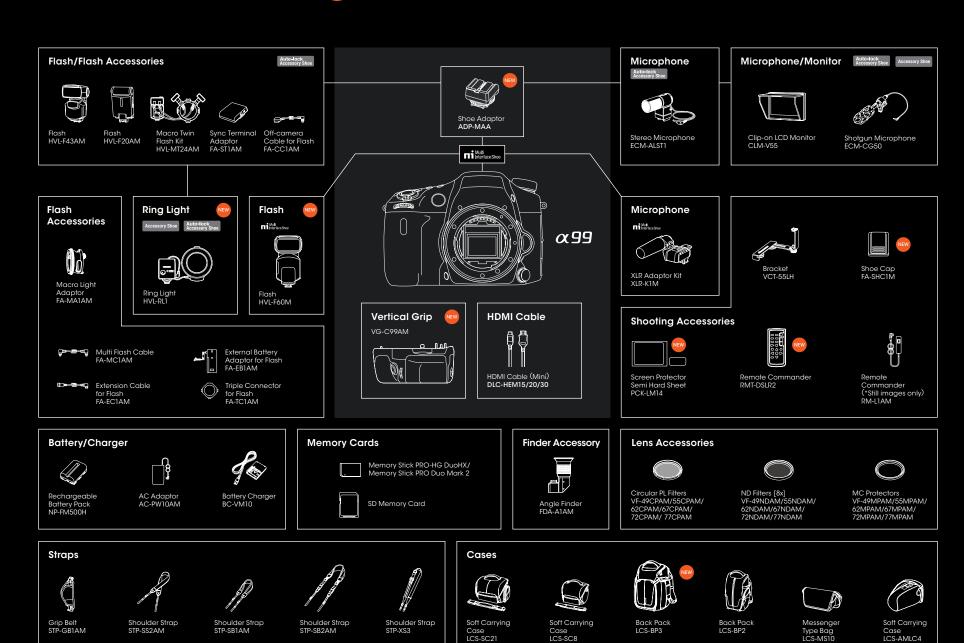
Remote Commander RMT-DSLR2



This wireless remote commander for lpha A-mount and E-mount cameras provides easy remote start/stop functionality whether shooting still images or movies.



## system at a glance



## explore the possibilities



#### **Image Data Converter and Remote Camera Control**

Image Data Converter software lets you enjoy advanced features for browsing, manipulating, converting and managing the full-resolution RAW images you capture. While viewing the images, you can expertly adjust exposure, white balance, tonal curves, saturation, contrast, hue, sharpness and more. The viewer window presents RAW and JPEG files as thumbnails, along with your preference ratings if desired, to support easy comparison of multiple images and enhance the browsing and management of your image data. **Bundled Remote Camera Control** software can enhance the efficiency of your studio workflow by letting you remotely activate and deactivate still/ movie recording and control various camera settings from a PC. Automatic transfer of still images from the camera to the PC is also possible. Controllable settings include exposure mode, ISO speed, various audio and image settings, etc.



#### **PlayMemories<sup>™</sup> Home**

This convenient software makes it easy to download photos to a computer for viewing, editing, printing, sharing (via e-mail or web upload), burning to disc or retouching.





#### PlayMemories<sup>™</sup> Online

Shoot photos and videos with your favorite camera or smartphone and effortlessly enjoy them on your tablet, computer, BRAVIA and more! Start with 5GB of free storage space! For details, visit http://playmemoriesonline.com.





#### PlayMemories<sup>™</sup> Studio\*

Now you can enjoy photos and movies on your game machine, thanks to PlayMemories Studio software for PS3.

\* Optional software





#### **GPS** capability

The built-in GPS (Global Positioning System) feature can tag your photographs with data that indicates where and when they were taken. When you view tagged photographs on a PC installed with bundled PMB software, or on a connected BRAVIA TV with the Photo Map function, the photos can be displayed on a map to indicate where they were taken. A highly sensitive antenna in the camera ensures clear reception of global positioning data wherever you travel.



#### Main specifications of lpha99

Camera type	Interchangeable lens digital camera				
Lens compatibility mage sensor	Sony A-mount lenses, operation with Minolta/Konica lenses confirmed				
Туре	35mm full-frame (35.8 x 23.9mm), Exmor CMOS sensor				
Number of pixels (effective)	Approx. 24.3 megapixels				
Number of pixels (total)	Approx. 24.7 megapixels				
Image sensor aspect ratio	3:2  Charge protection coating on low-pass filter and image sensor shift mechanism				
Anti-dust system Recording system (still images)	Charge protection coaling on low-pass litter and image sensor shift mechanism				
Recording format	JPEG (DCF Ver. 2.0, Exif Ver. 2.3, MPF baseline compliant), RAW (Sony ARW 2.3 formations)				
	RAW & JPEG				
Image size (pixels) 3:2 aspect ratio	35mm full-frame L: 6000 x 4000 (24M), M: 3936 x 2624 (10M), S: 2640 x 1760 (4.6M) APS-C L: 3936 x 2624 (10M), M: 2640 x 1760 (4.6M), S: 1728 x 1152 (2.0M)				
16:9 aspect ratio	35mm full-frame L: 6000 x 3376 <sup>(</sup> 20M), M: 3936 x 2216 <sup>(</sup> 8.7M), S: 2640 x 1488 <sup>(</sup> 3.9M) APS-C L: 3936 x 2216 <sup>(</sup> 8.7M), M: 2640 x 1488 <sup>(</sup> 3.9M), S: 1728 x 976 <sup>(</sup> 1.7M)				
Sweep Panorama	Wide: horizontal 12,416 x 1,856 (23M), vertical 5,536 x 2,160 (12M), Standard: horizontal 8,192 x 1,856 (15M), vertical 3,872 x 2,160 (8.4M)				
Image quality modes	RAW, RAW & JPEG, JPEG Extra fine, JPEG Fine, JPEG Standard  14 bit				
RAW output Picture Effect	14 off 11 types (15 variations): Posterization (Color), Posterization (BAW), Pop Color, Retro Photo, Partial Color (R), Partial Color (G), Partial Color (R), Partial Color (V), High Contrast Monochrome, Toy Camera, Soft High-key, Soft Focus, HDR Painting, Rich-ton Mono, Ministra				
Creative Style	Standard, Vivid, Neutral, Clear, Deep, Light, Portrait, Landscape, Sunset, Night scene, Autumn leaves, Black & White, Sepia (Contrast (-3 to +3 steps), Saturation (-3 to +3 steps), Sharpness (-3 to +3 steps))				
Dynamic range functions	Off, Dynamic Range Optimizer (Auto/Level (1-5)), Auto High Dynamic Range (Auto Exposure Difference, Exposure Difference Level (1-6 EV, 1.0 EV step))				
Color Space	sRGB, Adobe RGB				
Recording system (movie) Recording format	AVCHD Ver. 2.0 (Progressive)/MP4				
video compression	AVCHD Ver. 2.0 compliant/MPEG-4 AVC (H.264)				
Audio recording format	Dolby Digital (AC-3)/MPEG-4 AAC-LC, 2ch				
mage size (pixels) NTSC	AVCHD: 1920 x 1080 (60p/28Mbps**/PS, 60i/24Mbps**/FX, 60i/17Mbps***/FH,				
**Maximum bit rate ***Average bit rate	24p/24Mbps**/FX, 24p/17Mbps***/FH) MP4: 1440 x 1080 (30fps/12Mbps***), 640 x 480 (30fps/3Mbps***)				
Movie functions Media	Audio Level Display, Audio Rec Level, AF Tracking Duration, Auto Slow Shutter, HDMI int Display (on/off selectable)				
Media	Memory Stick PRO DuoTM, Memory Stick PRO-HG DuoTM, SD memory card, SDHC memory card (UHS-I compliant), SDXC memory card (UHS-I compliant)				
Slot	Slot 1: Multi slot for Memory Stick PRO Dua/SD (UHS-I compliant) memory card Slot 2: SD (UHS-I compliant) memory card only				
Recording mode on 2 memory cards	Simult. Rec (Still), Simult. Rec (Movie), Simult. Rec (Still/Movie), Sort (JPEG/RAW), Sort (Still/Movie), Copy				
Noise reduction Noise reduction	Long exposure NR: On/Off selectable, available for shutter speeds longer than 1 sec.				
Noise reduction	High ISO NR: Normal/Low/Off selectable				
Multi Frame NR	Auto/ISO 100 to 51200				
White balance					
Modes	Auto/Doylight/Shode/Cloudy/Incondescent/Fluorescent <-Warm White/Cool White/Dow White/Doylights/Flash/Color Temperature <2500 to 9900K> & color filter <g7 m7<br="" to="">A7 to B7-y/Custom &lt;3&gt;</g7>				
AWB micro adjustment	Yes <g7 (15="" a7="" b7="" m7="" steps)="" steps),="" to=""></g7>				
Bracketing	3 frames, H/L selectable				
Focusing system	TI Discondistration AF				
Type Focus sensor	TTL Phase-detection AF Detector 1: CCD line sensors				
Focus point	Detector 2: 102 assist points *1 Detector 1: 19 points (11 points cross type) Detector 2: 102 assist points*1				
Sensistivity range	Detector 1:-1 to 18 EV (at ISO 100 equivalent with F2.8 lens attached)				
Focus mode	Direct Manual Focus, Manual focus selectable				
AF mode Focus area	Single-shot AF (AF-S), Automatic AF (AF-A), Continuous AF (AF-C), Depth Map Assist Continuous AF (AF-D)*1 selectable  Wide (auto,19 points)/Zone/Spot/Local selectable				
Other features	Tracking focus, Predictive control (AFA, AF-C, AF-D*1), Focus lock, Eye-start AF, AF illuminator (built-in, LED type, range: Approx. 1-7m (Approx. 3.3 to 23 feet)), AF range control, AF micro adjustment, AF ON				
Exposure control					
Metering type	1200-zone evaluative metering				
Metering sensor	Exmor CMOS sensor				
Metering sensitivity Modes	-2 to 17 EV (at ISO 100 equivalent with F1.4 lens attached)  Multi-segment, Center-weighted, Spot				
Exposure modes	Maltro (MUTO, Superior Auto). Orgammed AE (P). Aperture priority (A), Shutter-speed priority (S), Manual (M), Scene Selection, Sweep Panorama, Tele-zoom Continuous Priority AE, Movie (Programmed AE (P), Aperture priority (A)/Shutter-speed priority (S), Manual (M), selectable in manual floxus mode)				
Scene Selection	Portrait, Landscape, Macro, Sports action, Sunset, Night portrait, Night scene, Hand-held Twilight				
Exposure compensation AE bracketing	+/-5.0 EV (1/3 EV, 1/2 EV steps selectable)  Bracket: Contr./Bracket: Single, With 1/3 EV, 1/2 EV, 2/3 EV, 2.0 EV, 3.0 EV increments, 3/5 frames (1.0 EV, 3.0 EV) and 1/2 EV, 2/3 EV, 2.0 EV, 3.0 EV increments, 3/5 frames (1.0 EV, 3.0 EV) and 1/2 EV, 2/3 EV, 2.0 EV, 3.0 EV increments, 3/5 frames (1.0 EV, 3.0 EV) and 1/2 EV increments, 3/5 frames (1.0 EV, 3.0 EV) and 1/2 EV increments, 3/5 frames (1.0 EV, 3.0 EV) and 1/2 EV increments, 3/5 frames (1.0 EV, 3.0 EV) and 1/2 EV increments, 3/5 frames (1.0 EV, 3.0 EV) and 1/2 EV increments, 3/5 frames (1.0 EV, 3.0 EV) and 1/2 EV increments, 3/5 frames (1.0 EV, 3.0 EV) and 1/2 EV increments, 3/5 frames (1.0 EV) and 1/2 E				
AE lock	3/5 frames (2,0 EV, 3.0 EV: only 3 frames) selectable Available with AE lock button. AE is also locked when focus is locked in multi-segmen metering mode.				
ISO sensitivity	Still images: ISO 100-25600 equivalent (1/3 EV step), (ISO numbers up from ISO 50 can be set as expanded ISO range.), AUTO (ISO 100–6400, selectable lower limit				
(Recommended Exposure Index)	and upper limit )  Movies: ISO 100-6400 equivalent (1/3 EV step)/AUTO (ISO 100-3200 equivalent)				

Viewfinder	VCA DIED 1.2 am (0.5 hma) electronic vis: 5-4-4-4-1-1			
Type Number of dots	XGA OLED, 1.3 cm (0.5 type) electronic viewfinder (color) 2,359,296 dots			
Brightness control	Auto/Manual (3 steps between -1 and +1)			
Color temperature control	Manual (5 steps)			
Field coverage	100%			
Magnification	Approx. 0.71x (with 50mm lens at infinity, -1m-1)			
Diopter adjustment  Eye point	-4.0 to +3.0m-1  Approx. 27mm from the eyepiece lens, 22mm from the eyepiece frame at -1 diopter			
Eye poilii	(CIPA standard)			
Display	Graphic Display/Display All Info,/No Disp. Info,/Digital Level Gauge/ Histogram			
Real-time image-adjustment display	ON/OFF			
LCD screen	7.5 (2.0 h) TET +÷			
Type Total number of dots	7.5 cm (3.0 type) TFT drive 1,228,800			
Brightness control	Auto, Manual (5 steps between -2 and +2), Sunny weather			
Adjustable angle	Tilt angle: 140°upward and 180° downward			
D: 1 1 (5 1 40D)	Rotation angle: 180° clockwise and 90° counterclockwise			
Display selecter (Finder/LCD)  Display	Auto/Manual  Graphic Display/Display All Info Mic Disp Info /Digital Loyal Cause/Alistogram/Sha			
Display	Graphic Display/Display All Info,/No Disp. Info,/Digital Level Gauge/Histogram/Sho information for viewfinder mode			
Real-time image-adjustment display	On/Off			
Focus Magnifier	35mm full-frame: 5.9x, 11.7x APS-C: 3.8x, 7.7x			
Peaking MF	Yes (Level setting: High/Mid/Low/Off, Color: White/Red/Yellow)			
Display Panel	Top Panel (setting mode indicator LCD)			
Other features	top runor doning mode malediar Edex			
Face detection				
Auto Portrait Framing				
Clear Image Zoom Digital Zoom Smart zoom(still image)	M: approx. 1.5x S: approx. 2.3x			
Digital Zoom Smart zoom(still image)  Digital zoom(still image)	Approx. 1.5x S; approx. 2.3x  Approx. 4x			
Digital zoom(movie)	Approx. 4x			
Smart Teleconverter	Approx. 1.4x/2x			
Lens compensation	Peripheral shading, chromatic aberration, distortion			
Shutter Type	Electronically controlled, vertical-traverse, focal-plane type			
Shutter speed	Still images: 1/8000 to 30 sec, Bulb			
	Movies: 1/8000 to 1/4 (1/3 step)			
	NTSC: up to 1/60 in AUTO mode (up to 1/30 in Auto slow shutter mode) PAL: up to 1/50 in AUTO mode (up to 1/25 in Auto slow shutter mode)			
Flash sync. speed	1/250 sec.			
Electronic Front Shutter Curtain	Yes (ON/OFF)			
SteadyShot INSIDE (image stabilization)				
Type	For still images: Image Sensor-Shift mechanism, For movies: Electronic			
Compensation effect	Equivalent to approx. 2.5 to 4.5 steps in shutter speeds  *Varies according to shooting conditions and lens used			
Flash Control (with optional external flash)	variou decorating to shooting deviations and tone deca			
Control	ADI, Pre-flash TTL			
Flash compensation	+/- 3.0 EV (switchable between 1/3 and 1/2 EV steps)			
Flash bracketing Flash modes	0.3/0.5/0.7/2.0/3.0 EV steps, 3/5 frames (2.0/3.0 EV: only 3 frames) selectable Flash off, Autoflash, Fill-flash, Rear Sync., Slow Sync., Red-eye reduction (on/off			
Hushinoucs	selectable), Hi-speed sync*3, Wireless*3			
External flash	Sony a System Flash compatible with Multi Interface Shoe, attach the shoe adaptor for			
FF. III	flash compatible with auto-lock accessory shoe			
FE level lock Wireless control	Yes Vec (uirologe fleeh with lighting ratio control)			
Drive	Yes (wireless flash with lighting ratio control)			
Drive modes	Single Shooting, Continuous shooting (Hi/Lo selectable), Self-timer (10/2 sec. delay			
	selectable), Bracket: Cont., Bracket: Single, White Balance bracket, DRO bracket,			
Continuous shooting speed	Remote Control (with optional RMT-DSLR2)  Tele-zoom Continuous Advance Priority AE: Maximum Approx. 10/8fps selectable			
(approx., max.)*2	Continuous shooting Hi:			
	35mm full-frame: Maximum approx. 6fps			
	APS-C: Maximum approx. 7fps Continuous shooting Lo:			
	35mm full-frame: Maximum approx. 2.5fps			
No of framos recordables (annua 12 - 5	APS-C: Maximum approx. 2.5fps  Continuous charting Hi-Estra FINE 15 FINE 24 STD 20 DAW 15 DAW, IDEC 12			
No. of frames recordable* (approx.)*2 when used with SD-UHS1 card	Continuous shooting Hi: Extra FINE 15, FINE 24, STD 29, RAW 15, RAW+JPEG 12			
	Continuous shooting Hi: Extra FINE 15, FINE 24, STD 29, RAW 15, RAW-4, PEG 12 Tele-zoom Continuous Advance Priority AE (8fps.): Extra FINE 20, FINE 28, STD 31, RAW 19, RAW-4, PEG 18, Tele-zoom Continuous Advance Priority AE (10fps.): Extra FINE 20,			
used with SD-UHS1 card	Continuous shooting Hi: Extra FINE 15, FINE 24, STD 29, RAW 15, RAW+JPEG 12 Tele-zoom Continuous Advance Priority AE (8fps): Extra FINE 20, FINE 28, STD 31, RAW			
used with SD-UHS1 card  Playback	Confinuous shonting Hi: Ednt FINE 15, FINE 24, STD 29, RAW 15, RAW-LIPEG 12 Tiele-zoom Confinuous Advance Priority AE (8tps): Ednt FINE 20, FINE 28, STD 31, RAW 19, RAW-LIPEG 18, Tele-zoom Confinuous Advance Priority AE (10tps): Ednt FINE 20, FINE 26, STD 28			
used with SD-UHS1 card	Continuous shooting Hi: Edra FINE 15, FINE 24, STD 29, RAW 15, RAW-LIPEG 12 Tele-zoom Continuous Advance Priority AE (8tps): Edra FINE 20, FINE 28, STD 31, RAW 19, RAW-LIPEG 18, File-zoom Continuous Advance Priority AE (10tps): Edra FINE 20, FINE 26, STD 28 Single (with or without shooting information, RGB histogram & highlight/shodow			
used with SD-UHS1 card  Playback	Continuous shooting His Editor FINE 15, FINE 24, STD 29, RAW 15, RAW-LIPEG 12. Tele-zoom Continuous Advance Priority AE (8tps): Editor FINE 20, FINE 28, STD 31, RAW 19, RAW-LIPEG 18, Elle-zoom Continuous Advance Priority AE (10tps): Editor FINE 20, FINE 26, STD 28. Single (with or without shooting information, RGB histogram & highlight/shodow warning). 4,9-Home index view, Enlarged display mode. (Maximum magnification L16 7x, M.11. 8x, S.8.3x). Auto Review (10tG/25 exc. 01), Image orientation (n/Orbf).			
used with SD-UHS1 card  Playback	Confinuous shooting His Edita FINE 15, FINE 24, STD 29, RAW 15, RAW-LIPEG 12 Tele-zoom Confinuous Advance Priority AE (Stgh.): Edita FINE 20, FINE 28, STD 31, RAW 19, RAW-LIPEG 18, Tele-zoom Confinuous Advance Priority AE (10fps): Edita FINE 20, FINE 26, STD 28 Single (with or without shooting information, RGB histogram & highlight/shodow worning). 4,9-frame index view, Enlarged display mode. (Maximum magnification L-16,7x, M-11,8x, St. 3x). Auto Review (10,672, sec. off). Innograficenting (Cnr) Sinelectable). Sideshow, Parnorama scortlina, Folder selection (Still), Forward/Reviewl			
used with SD-UHS1 card  Playback	Continuous shooting His Editor FINE 15, FINE 24, STD 29, RAW 15, RAW-LIPEG 12. Tele-zoom Continuous Advance Priority AE (8tps): Editor FINE 20, FINE 28, STD 31, RAW 19, RAW-LIPEG 18, Elle-zoom Continuous Advance Priority AE (10tps): Editor FINE 20, FINE 26, STD 28. Single (with or without shooting information, RGB histogram & highlight/shodow warning). 4,9-Home index view, Enlarged display mode. (Maximum magnification L16 7x, M.11. 8x, S.8.3x). Auto Review (10tG/25 exc. 01), Image orientation (n/Orbf).			
used with SD-UHS1 cord  Playbook Modes  Interface PC interface PC interface	Confinuous shorting His Editar FINE 15, FINE 24, STD 29, RAW 15, RAW-LIPEG 12 Tele-zoom Confinuous Advance Priority AE (Righs Editer RIVE 20, FINE 28, STD 31, RAW 19, RAW-LIPEG 18, Tele-zoom Confinuous Advance Priority AE (10fps): Editar FINE 20, FINE 26, STD 28 Single (with or without shooting information, RGB histogram & highlight/shodow warning). 4,9-frome index view, Enlarged display mode (Maximum magnification L 1-16,7x, M 1.1 ax, St. 3-3). Auto Review (10,6/2 sec. off). Image orientation (On/Off selectable). Sideshow. Phororama scrolling. Folder selection (Still), Forward/Rewind (Mavie). Delete, Protect			
used with SD-UHS1 cord  Playback Modes  Interface Pic interface HD output	Confinuous shooting His Edra FINE 15, FINE 24, STD 29, RAW 15, RAW-LIPEG 12 Tolle 2com Confinuous Advance Priority AE (Righs Edra RIVE 20, RIVE 28, STD 31, RAW 19, RAW-LIPEG 18, Telle 2com Confinuous Advance Priority AE (10fps): Edra FINE 20, FINE 26, STD 28 Single (with or without shooting information, RGB histogram & highlight/shodow woming) 4.9-frome index view, Enlarged display mode (Modimum magnification 16,7-x, Mr.11 & S. S. Sa). Availa Review (10/5/2 sec, off). Image evientation (On/Off selectable). Stideshow, Paracamar scralling, Folder selection (Still), Forward/Rewind (Movie). Delete, Protect miniB, Hi-speed USB (USB2 2) (Mass-storage (Multi LUN), MTP, PC remote). HOM minic connector (Type-C), BRAWIA Syne (linic menu). PhotoTV HD			
used with SD-UHS1 cord  Playbook Modes  Interface PC interface PC interface	Confinuous shooting His Edra FINE 15, FINE 24, STD 29, RAW 15, RAW-LIPEG 12 Tele-zoom Confinuous Advance Priority AE (Righz-Edra FINE 20, RINE 28, STD 31, RAW 19, RAW-LIPEG 18, Tele-zoom Confinuous Advance Priority AE (10fps): Edra FINE 20, FINE 26, STD 28  Single (with or without shooting information, RGB histogram & highlight/shodow warning), 4,9-4rame index view, Enlarged display mode. (Maximum magnification L. 16.7; M. 11. 8x, St. 3x). Auto Review (110/52 sec. off). Image crientation (On/OT selectable). Sideshow. Pharoman scrolling, Folder selection (Still), Forward/Rewind (Movie). Delete, Protect  miniB, Hi-speed USB (USB2 0) (Mass-storage (Mutti LUN), MTP; PC remote). PMDM mini connector (Type-C), BRRVIA Symc (link menu). PhotoTV HD Sync, terminol, Multi Interface Shoe*7, Auto-lock accessory shae compatible with spreled explicit of from Mini Mini Interface Shoe*7. Auto-lock accessory shae compatible with spreled explicit of from Mini Mini Interface Shoe*7. Auto-lock accessory shae compatible with spreled USB controlled Without Server minior (1.5 mm). Memorinal Minister Server (100 Minister). Minister shae minister, DNI Membral Accession (100 Minister).			
used with SD-UHS1 cord  Playback Modes  Interface Pic interface HD output	Confinuous shooting His Edra FINE 15, FINE 24, STD 29, RAW 15, RAW-LIPEG 12 Tolle 2com Confinuous Advance Priority AE (Righs Edra RIVE 20, RIVE 28, STD 31, RAW 19, RAW-LIPEG 18, Telle 2com Confinuous Advance Priority AE (10fps): Edra FINE 20, FINE 26, STD 28 Single (with or without shooting information, RGB histogram & highlight/shodow woming) 4.9-frome index view, Enlarged display mode (Modimum magnification 16,7-x, Mr.11 & S. S. Sa). Availa Review (10/5/2 sec, off). Image evientation (On/Off selectable). Stideshow, Paracamar scralling, Folder selection (Still), Forward/Rewind (Movie). Delete, Protect miniB, Hi-speed USB (USB2 2) (Mass-storage (Multi LUN), MTP, PC remote). HOM minic connector (Type-C), BRAWIA Syne (linic menu). PhotoTV HD			
used with SD-UHS1 cord  Playback Modes  Interface PC interface HD output Others	Confinuous shooting His Edra FINE 15, FINE 24, STD 29, RAW 15, RAW-LIPEG 12 Tele-zoom Confinuous Advance Priority AE (Righz-Edra FINE 20, RINE 28, STD 31, RAW 19, RAW-LIPEG 18, Tele-zoom Confinuous Advance Priority AE (10fps): Edra FINE 20, FINE 26, STD 28  Single (with or without shooting information, RGB histogram & highlight/shodow warning), 4,9-4rame index view, Enlarged display mode. (Maximum magnification L. 16.7; M. 11. 8x, St. 3x). Auto Review (110/52 sec. off). Image crientation (On/OT selectable). Sideshow. Pharoman scrolling, Folder selection (Still), Forward/Rewind (Movie). Delete, Protect  miniB, Hi-speed USB (USB2 0) (Mass-storage (Mutti LUN), MTP; PC remote). PMDM mini connector (Type-C), BRRVIA Symc (link menu). PhotoTV HD Sync, terminol, Multi Interface Shoe*7, Auto-lock accessory shae compatible with spreled explicit of from Mini Mini Interface Shoe*7. Auto-lock accessory shae compatible with spreled explicit of from Mini Mini Interface Shoe*7. Auto-lock accessory shae compatible with spreled USB controlled Without Server minior (1.5 mm). Memorinal Minister Server (100 Minister). Minister shae minister, DNI Membral Accession (100 Minister).			
used with SD-UHS1 cord  Playback Modes  Interface Pic interface HD output	Confinuous shooting His Edita FINE 15, FINE 24, STD 29, RAW 15, RAW-LIPEG 12 Tele-zoom Confinuous Advance Priority AE (Righs, Edita FINE 20, RINE 28, STD 31, RAW 19, RAW-LIPEG 18, Tele-zoom Confinuous Advance Priority AE (10fps): Edita FINE 20, FINE 26, STD 28 STD 31, RAW 19, RAW-LIPEG 18, Tele-zoom Confinuous Advance Priority AE (10fps): Edita FINE 20, FINE 26, STD 28 STD 32, RAW 19, RA			
used with SD-UHS1 cord  Playbook Modes  Interface PC interface HD output Others  Compatible OS	Confinuous shooting His Edra FINE 15, FINE 24, STD 29, RAW 15, RAW-LIPEG 12 Tele-zoom Confinuous Advance Priviny AE (Righs, Edra RINE 20, RINE 28, STD 31, RAW 19, RAW-LIPEG 18, Tele-zoom Confinuous Advance Priority AE (10fps): Edra FINE 20, FINE 26, STD 28  Single (with or without shooting information, RGB histogram & highlight/shodow worning). 4,09-fatome index view, Enlarged display mode. (Moximum magnification L. 16.7x, M. 11. 8x, St. 3x). Auto Review (110/52 sec. off). Image orientation (On-OT selectable). Sideshow, Phoroman scrolling, Folder selection (Silli), Forward/Rewind (Moxie). Delete, Protect  mini8, Hi-speed USB (USB2.0). (Mass-storage (Mutlit LUN). MTP: PC remote). HDM mini connector (Type-C.). BRAWA Sync (Init: menu). Pholotof HD  Sync: terminical. Mull Interforce Shrey -7 Auto-lock cooseasy shoe compatible with supplied shoe adaptor. Microphone terminal (3, Smm Stereo minipac). Och N terminal.			
used with SD-UHS1 cord  Playback Modes  Interface PC interface HD output Others	Confinuous shooting His Edita FINE 15, FINE 24, STD 29, RAW 15, RAW-LIPEG 12 Tele-zoom Confinuous Advance Priority AE (Righs, Edita FINE 20, RINE 28, STD 31, RAW 19, RAW-LIPEG 18, Tele-zoom Confinuous Advance Priority AE (10fps): Edita FINE 20, FINE 26, STD 28 STD 31, RAW 19, RAW-LIPEG 18, Tele-zoom Confinuous Advance Priority AE (10fps): Edita FINE 20, FINE 26, STD 28 STD 32, RAW 19, RA			
used with SD-UHS1 cord  Playback Modes  Interface PC interface HD output Others  Compatible OS  Audio Microphone	Confinuous shooting His Edra FINE 15, FINE 24, STD 29, RAW 15, RAW-LPEG 12 Tele-zoom Confinuous Advance Priority AE (Righz-Edra FINE 20, RINE 28, STD 31, RAW 19, RAW-LPEG 18, Tele-zoom Confinuous Advance Priority AE (10fps.): Edra FINE 20, FINE 20, STD 31, RAW 19, RAW-LPEG 18, Tele-zoom Confinuous Advance Priority AE (10fps.): Edra FINE 20, FINE 20, STD 28  Single (with or without shooting information, RGB histogram & highlight/shodow warning), 40,9-fatome index view, Enlarged display mode. (Maximum magnification L 16.7x, M. 11. 8x, St. 3x). Aluto Review (116/32 sec. off). Image crientation (On/OT selectable). Sideshow. Pharomana scrolling, Folder selection (Still), Forward/Rewind (Morie). Dietler, Protect  mini8, Hi-speed USB (USB2 0). (Mass-storage (Mattle LIN), MTP, PC remote). Photograph of the protect of the protec			
used with SD-UHS1 cord  Playback  Modes  Interface PC interface HD output Others  Audio Microphone  Speaker	Continuous shooting His Edit of RNE 15, FINE 24, STD 29, RAW 15, RAW-LIPEG 12 in decome Continuous Advoner Point AE (Bable Stein RNE 20, RNE 28, STD 31, RAW 19, RAW-LIPEG 18, Tele-zoom Continuous Advoner Priority AE (10fps.): Edit of FINE 20, RNE 26, STD 28, RAW 19, RAW-LIPEG 18, Tele-zoom Continuous Advonce Priority AE (10fps.): Edit of FINE 20, RNE 26, STD 28, STD 31, RAW 19, RAW-LIPEG 18,			
used with SD-UHS1 cord  Playback Modes  Interface PC interface HD output Others  Compatible OS  Audio Microphone	Confinuous shooting His Edra FINE 15, FINE 24, STD 29, RAW 15, RAW-LPEG 12 Tele-zoom Confinuous Advance Priority AE (Righz-Edra FINE 20, RINE 28, STD 31, RAW 19, RAW-LPEG 18, Tele-zoom Confinuous Advance Priority AE (10fps.): Edra FINE 20, FINE 20, STD 31, RAW 19, RAW-LPEG 18, Tele-zoom Confinuous Advance Priority AE (10fps.): Edra FINE 20, FINE 20, STD 28  Single (with or without shooting information, RGB histogram & highlight/shodow warning), 40,9-fatome index view, Enlarged display mode. (Maximum magnification L 16.7x, M. 11. 8x, St. 3x). Aluto Review (116/32 sec. off). Image crientation (On/OT selectable). Sideshow. Pharomana scrolling, Folder selection (Still), Forward/Rewind (Morie). Dietler, Protect  mini8, Hi-speed USB (USB2 0). (Mass-storage (Mattle LIN), MTP, PC remote). Photograph of the protect of the protec			

Custom function	
Type	Custom key settings, Programmable setting
Memory function	Yes (3 sets)
Power	
Battery	One rechargeable battery pack NP-FM500H
Still images	Approx. 410 shots (Viewfinder)/approx. 500 shots (LCD monitor) (CIPA measurement)
Movies'6	Approx. 155 min with viewfinder, approx. 155 min with LCD monitor
External Power	AC Adaptor AC-PW10AM (sold separately)
Weight	
With battery and	Approx. 812 g (approx. 1 lb 12.7 oz)
Memory Stick PRO Duo included	
Body only	Approx. 733 g (approx. 1 lb 9.9 oz)
Dimensions	
W x H x D (excluding protrusions)	Approx. 147 x 111.2 x 78.4mm (approx. 5 7/8 x 4 1/2 x 3 1/8")
Others	
Body material	Magnesium Alloy and High rigidity engineering plastic exterior
Operating temperature	32-104°F/0-40°C

Movie recording time for single media (Memory Stick PRO Duo, in hours and minutes, approx.)						
		2G	4G	8G	16G	32G
AVCHD	AVCHD 60i 24M (FX) (NTSC/PAL) 50i 24M (FX) (PAL)	10m	20m	40m	1h 30m	3h
AVCHD	60p 28M (PS) (NTSC/PAL) 50p 28M (PS)	9m	15m	35m	1h 15m	2h 30m
AVCHD	24p 24M (FX) (NTSC/PAL) 25p 24M (FX) (PAL)	10m	20m	40m	1h 30m	3h
MP4	MP4 1440×1080 12M	20m	40m	1h 20m	2h 45m	5h 30m

<sup>\*</sup>The numbers in the table above show the approximate maximum recordable time obtained by totaling all movie files

\*The size of a movie file is limited to approx. 2GB.

Number of recordable still images for single media Media: Memory Stick PRO Duo, Image size: 35mm full-frame, L 24M (3:2 aspect ratio)					
	2G	4G	8G	16G	32G
Standard	280	560	1100	2250	4600
Fine	195	395	800	1600	3200
Extra Fine	105	215	435	870	1750
RAW + JPEG	54	105	215	435	870
RAW	74	145	295	600	1200
*The actual numbers may be less than those indicated depending on the conditions of use.					



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#### System requirements of bundled software

	Image Data Converter Ver. 4/Remote Camera Control Ver. 3		PlayMemories Home <sup>™</sup>	
OS*	Microsoft Windows ® Windows® XP** SP3, Windows Vista® SP2, Windows 7 SP1	Macintosh® Mac OS X (v10.5 (Leopard), v.10.6 (Snow Leopard), v.10.7 (Lion), v.10.8 (Mountain Lion))	Microsoft Windows® Windows® XP** SP3, Windows 7 SP1, Windows 7 SP1	
СРИ	Pentium 4 or faster	Intel Core Solo/Core Duo/Core 2 Duo or faster	Rentium III 800 MHz or faster For playing/editing High Definition movies: Intel Core Duo 1.66 GHz or faster/finel Core 2 Duo 1.66 GHz or faster, Intel Core 2 Duo 2.26 GHz or faster (WC HIII (EVR)), Intel Core 2 Duo 2.40 GHz or faster (WC HIII (EVS))	
Memory	1 GB or more is recommended.	1 GB or more is recommended.	512 MB or more (For playing/editing High Definition movies: 1 GB or more)	

The computer environment must also satisfy the operating requirements of the OS.

- \* Must be installed with the listed OS at delivery. Proper operation cannot be guaranteed with an upgraded OS environment.
- \*\* 64-bit and Starter Editions are not supported. Windows Image Mastering API (IMAPI) Ver. 2.0 or later is required for disc burning function.

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  \* InfoLithium @ is a lithium battery pack which can exchange data with compatible electronic equipment about its energy consumption.
- Sony recommends that you use the battery pack with electronic equipment bearing the mark. \* WhiteMagic™ and WhiteMagic are trademarks of Japan Display Inc.
- · Screen displays are simulated.
- Simulated effects are used to illustrate some functions.

